Filing Date: March 1, 2002

A TECHNIQUE FOR COMPILING COMPUTER CODE TO REDUCE ENERGY CONSUMPTION WHILE EXECUTING THE Title:

REMARKS

This responds to the Office Action dated January 3, 2007 and the decision of the Board of Patent Appeals and Interferences dated April 22, 2009.

Claims 1, 14, 24, 34, 36, 37, 39, and 43 are currently amended, claim 35 is canceled, and no claims are currently added; as a result, claims 1 - 34 and 36 - 44 are now pending and subject to examination in this application.

Support for the amendments to the claims can be found in the Applicants specification at page 2, lines 15-18, page 3, lines 3-6, page 5, lines 8-11, page 15, liens 16-17, and page 17, lines 2-5.

§103 Rejection of the Claims

Claims 1, 2, 11-15, 22-25, 32-36, 43 and 44 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bartley (U.S. Patent No. 6,219,796) in view of Y. Li et al. ("A framework for estimating and minimizing energy dissipation of embedded hw/sw systems").

Claims 3-10, 16-21, 26-31 and 37-42 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bartley (U.S. Patent No. 6,219,796) in view of Y. Li et al. ("A framework for estimating and minimizing energy dissipation of embedded hw/sw systems") and further in view of G. Ramalingam ("Data Flow Frequency Analysis," SIGPLAN Conference on Programming Language Design and Implementation, 1996).

In response to the Board's sustaining of the Examiner's rejection of the claims, the Applicant has amended the claims. Specifically, the Applicant has amended the claims to recite:

"analyzing the one or more potential locations;

determining one or more specific locations among the one or more potential locations at which power-down instructions can be inserted;

selecting one or more of the one or more specific locations to insert the powerdown instructions from the identified potential locations in the code based on reducing and optimizing power consumption and satisfying user-specified real-time performance constraints; and inserting the power-down instructions in the selected locations to reduce

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<u>and optimize</u> the power consumption during the execution of the code while satisfying user-specified real-time performance constraints <u>and without significantly increasing</u> execution time."

The Applicant contended before the Board that its invention, unlike either Bartley or Li, permitted one to determine specific locations at which to insert computer code in order to optimize processor performance. In response, the Board stated that the claims did not recite a step of determining specific code locations or optimizing processor performance. Consequently, the Applicant has amended the claims to includes these steps, and respectfully submits that these amendments to the claims place the claims into a condition for allowance.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 – EXPEDITED PROCEDURE

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CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 371-2140 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Reservation of Rights

In the interest of clarity and brevity, Applicant may not have addressed every assertion made in the Office Action. Applicant's silence regarding any such assertion does not constitute any admission or acquiescence. Applicant reserves all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicant does not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicant timely objects to such reliance on Official Notice, and reserves all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicant reserves all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

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Respectfully submitted,

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Date __ June 22, 2009

Ву_

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 22 day of June 2009.

John D. Gustav-Wrathall

Name

Signature